

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Savannah
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Tel: (912)354-7858

TestAmerica Job ID: 680-115840-2
Client Project/Site: Gold King Mine - Region 8 (Soils)

For:
Weston Solutions, Inc.
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Lakewood, Colorado 80215

Attn: Moira Pryhoda



Authorized for release by:
8/23/2015 1:16:52 PM

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Results relate only to the items tested and the sample(s) as received by the laboratory.

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Method Summary

Client: Weston Solutions, Inc.
Project/Site: Gold King Mine - Region 8 (Soils)

TestAmerica Job ID: 680-115840-2

Method	Method Description	Protocol	Laboratory
6010C	Metals (ICP)	SW846	TAL DEN
6020A	Metals (ICP/MS)	SW846	TAL DEN
7471A	Mercury (CVAA)	SW846	TAL DEN
9045D	pH	SW846	TAL DEN
Moisture	Percent Moisture	EPA	TAL DEN
SM 2540B	Solids, Total	SM	TAL DEN

Protocol References:

EPA = US Environmental Protection Agency

SM = "Standard Methods For The Examination Of Water And Wastewater",

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL DEN = TestAmerica Denver, 4955 Yarrow Street, Arvada, CO 80002, TEL (303)736-0100

Sample Summary

Client: Weston Solutions, Inc.
Project/Site: Gold King Mine - Region 8 (Soils)

TestAmerica Job ID: 680-115840-2

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
680-115840-21	GKMSE28_081915	Solid	08/19/15 10:32	08/20/15 09:35
680-115840-22	TP01_081815	Solid	08/18/15 14:20	08/20/15 09:35
680-115840-23	TP02_081815	Solid	08/18/15 14:25	08/20/15 09:35

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Definitions/Glossary

Client: Weston Solutions, Inc.
Project/Site: Gold King Mine - Region 8 (Soils)

TestAmerica Job ID: 680-115840-2

Qualifiers

Metals

Qualifier	Qualifier Description
B	Compound was found in the blank and sample.
F1	MS and/or MSD Recovery is outside acceptance limits.
F2	MS/MSD RPD exceeds control limits
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
U	Indicates the analyte was analyzed for but not detected.
F3	Duplicate RPD exceeds the control limit
F5	Duplicate RPD exceeds limit, and one or both sample results are less than 5 times RL. The data are considered valid because the absolute difference is less than the RL.
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.

General Chemistry

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Case Narrative

Client: Weston Solutions, Inc.
Project/Site: Gold King Mine - Region 8 (Soils)

TestAmerica Job ID: 680-115840-2

Job ID: 680-115840-2

Laboratory: TestAmerica Savannah

Narrative

CASE NARRATIVE

Client: Weston Solutions, Inc.

Project: Gold King Mine - Region 8 (Soils)

Report Number: 680-115840-2

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In the event of interference or analytes present at high concentrations, samples may be diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

RECEIPT

The samples were received on 08/20/2015; the samples arrived in good condition, properly preserved and on ice. The temperature of the coolers at receipt was 0.2° C, 1.8° C and 2.8° C.

METALS (ICP)

Samples GKMSE28_081915 (680-115840-21), TP01_081815 (680-115840-22) and TP02_081815 (680-115840-23) were analyzed for Metals (ICP) in accordance with EPA SW-846 Method 6010C. The samples were prepared and analyzed on 08/21/2015.

Calcium and Magnesium were detected in method blank MB 280-291577/1-A at levels that were above the method detection limit but below the reporting limit. The values should be considered estimates, and have been flagged. If the associated sample reported a result above the MDL and/or RL, the result has been flagged.

Iron failed the recovery criteria low for the MS of sample GKMSE28_081915MS (680-115840-21) in batch 280-291793. Aluminum failed the recovery criteria high.

Iron failed the recovery criteria low for the MSD of sample GKMSE28_081915MSD (680-115840-21) in batch 280-291793. Aluminum failed the recovery criteria high.

Magnesium exceeded the RPD limit for the duplicate of sample GKMSE28_081915DU (680-115840-21).

Refer to the QC report for details.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

METALS (ICPMS)

Samples GKMSE28_081915 (680-115840-21), TP01_081815 (680-115840-22) and TP02_081815 (680-115840-23) were analyzed for metals (ICPMS) in accordance with EPA SW-846 Methods 6020A. The samples were prepared and analyzed on 08/21/2015.

Antimony, Barium and Nickel were detected in method blank MB 280-291579/1-A at levels that were above the method detection limit but below the reporting limit. The values should be considered estimates, and have been flagged. If the associated sample reported a result above the MDL and/or RL, the result has been flagged.

Several analytes failed the recovery criteria low for the MS of sample GKMSE28_081915MS (680-115840-21) in batch 280-291792.

For the MSD of sample GKMSE28_081915MSD (680-115840-21) in batch 280-291792, Several analytes failed the recovery criteria low. Barium and Manganese failed the recovery criteria high. Also, Antimony and Silver exceeded the RPD limit.

Case Narrative

Client: Weston Solutions, Inc.
Project/Site: Gold King Mine - Region 8 (Soils)

TestAmerica Job ID: 680-115840-2

Job ID: 680-115840-2 (Continued)

Laboratory: TestAmerica Savannah (Continued)

The presence of the '4' qualifier indicates analytes where the concentration in the unspiked sample exceeded four times the spiking amount.

Several analytes exceeded the RPD limit for the duplicate of sample GKMSE28_081915DU (680-115840-21).

Refer to the QC report for details.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

TOTAL MERCURY

Samples GKMSE28_081915 (680-115840-21), TP01_081815 (680-115840-22) and TP02_081815 (680-115840-23) were analyzed for total mercury in accordance with EPA SW-846 Method 7471A. The samples were prepared and analyzed on 08/21/2015.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

PH (CORROSIVITY)

Samples TP01_081815 (680-115840-22) and TP02_081815 (680-115840-23) were analyzed for pH (corrosivity) in accordance with EPA SW-846 Method 9045D (DI Leach). The samples were leached on 08/20/2015 and analyzed on 08/20/2015.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

PERCENT SOLIDS/MOISTURE

Samples GKMSE28_081915 (680-115840-21), TP01_081815 (680-115840-22) and TP02_081815 (680-115840-23) were analyzed for Percent Solids/Moisture in accordance with TestAmerica SOP. The samples were analyzed on 08/20/2015.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

TOTAL SOLIDS

Samples TP01_081815 (680-115840-22) and TP02_081815 (680-115840-23) were analyzed for total solids in accordance with SM 2540B. The samples were analyzed on 08/20/2015.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Client Sample Results

Client: Weston Solutions, Inc.
Project/Site: Gold King Mine - Region 8 (Soils)

TestAmerica Job ID: 680-115840-2

Client Sample ID: GKMSE28_081915

Lab Sample ID: 680-115840-21

Date Collected: 08/19/15 10:32

Matrix: Solid

Date Received: 08/20/15 09:35

Percent Solids: 69.6

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	9000		13	2.1	mg/Kg	☼	08/21/15 08:30	08/21/15 18:08	1
Calcium	2300	B	67	19	mg/Kg	☼	08/21/15 08:30	08/21/15 18:08	1
Iron	16000		20	5.1	mg/Kg	☼	08/21/15 08:30	08/21/15 18:08	1
Magnesium	4900	B	27	5.0	mg/Kg	☼	08/21/15 08:30	08/21/15 18:08	1
Potassium	810		400	55	mg/Kg	☼	08/21/15 08:30	08/21/15 18:08	1
Sodium	79	U	670	79	mg/Kg	☼	08/21/15 08:30	08/21/15 18:08	1

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.12	J F2 F1 B	0.25	0.017	mg/Kg	☼	08/21/15 08:30	08/21/15 18:54	1
Arsenic	7.4		0.74	0.063	mg/Kg	☼	08/21/15 08:30	08/21/15 18:54	1
Barium	41	F1 B	0.25	0.087	mg/Kg	☼	08/21/15 08:30	08/21/15 18:54	1
Beryllium	0.65		0.12	0.028	mg/Kg	☼	08/21/15 08:30	08/21/15 18:54	1
Cadmium	0.96		0.12	0.012	mg/Kg	☼	08/21/15 08:30	08/21/15 18:54	1
Chromium	4.4		0.25	0.094	mg/Kg	☼	08/21/15 08:30	08/21/15 18:54	1
Cobalt	7.4		0.12	0.0082	mg/Kg	☼	08/21/15 08:30	08/21/15 18:54	1
Copper	85	F1	0.31	0.088	mg/Kg	☼	08/21/15 08:30	08/21/15 18:54	1
Lead	78	F1	0.19	0.023	mg/Kg	☼	08/21/15 08:30	08/21/15 18:54	1
Manganese	610		0.31	0.041	mg/Kg	☼	08/21/15 08:30	08/21/15 18:54	1
Molybdenum	0.99		0.25	0.022	mg/Kg	☼	08/21/15 08:30	08/21/15 18:54	1
Nickel	7.2	B	0.19	0.031	mg/Kg	☼	08/21/15 08:30	08/21/15 18:54	1
Selenium	0.36	J	0.62	0.16	mg/Kg	☼	08/21/15 08:30	08/21/15 18:54	1
Silver	0.34	F2 F1	0.12	0.025	mg/Kg	☼	08/21/15 08:30	08/21/15 18:54	1
Thallium	0.13		0.12	0.0043	mg/Kg	☼	08/21/15 08:30	08/21/15 18:54	1
Vanadium	12		0.62	0.048	mg/Kg	☼	08/21/15 08:30	08/21/15 18:54	1
Zinc	550		1.2	0.39	mg/Kg	☼	08/21/15 08:30	08/21/15 18:54	1

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.016	J	0.029	0.0093	mg/Kg	☼	08/21/15 12:45	08/21/15 19:45	1

Client Sample ID: TP01_081815

Lab Sample ID: 680-115840-22

Date Collected: 08/18/15 14:20

Matrix: Solid

Date Received: 08/20/15 09:35

Percent Solids: 4.5

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	16000		210	32	mg/Kg	☼	08/21/15 08:30	08/21/15 18:23	1
Calcium	9400	B	1000	290	mg/Kg	☼	08/21/15 08:30	08/21/15 18:23	1
Iron	300000		310	78	mg/Kg	☼	08/21/15 08:30	08/21/15 18:23	1
Magnesium	3700	B	410	76	mg/Kg	☼	08/21/15 08:30	08/21/15 18:23	1
Potassium	2400	J	6200	840	mg/Kg	☼	08/21/15 08:30	08/21/15 18:23	1
Sodium	1500	J	10000	1200	mg/Kg	☼	08/21/15 08:30	08/21/15 18:23	1

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	4.2	B	3.8	0.27	mg/Kg	☼	08/21/15 08:30	08/21/15 19:16	1
Arsenic	73		11	0.97	mg/Kg	☼	08/21/15 08:30	08/21/15 19:16	1
Barium	27	B	3.8	1.3	mg/Kg	☼	08/21/15 08:30	08/21/15 19:16	1
Beryllium	1.2	J	1.9	0.43	mg/Kg	☼	08/21/15 08:30	08/21/15 19:16	1

TestAmerica Savannah

Client Sample Results

Client: Weston Solutions, Inc.
Project/Site: Gold King Mine - Region 8 (Soils)

TestAmerica Job ID: 680-115840-2

Client Sample ID: TP01_081815

Lab Sample ID: 680-115840-22

Date Collected: 08/18/15 14:20

Matrix: Solid

Date Received: 08/20/15 09:35

Percent Solids: 4.5

Method: 6020A - Metals (ICP/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	2.7		1.9	0.18	mg/Kg	☼	08/21/15 08:30	08/21/15 19:16	1
Chromium	6.3		3.8	1.5	mg/Kg	☼	08/21/15 08:30	08/21/15 19:16	1
Cobalt	4.4		1.9	0.13	mg/Kg	☼	08/21/15 08:30	08/21/15 19:16	1
Copper	700		4.8	1.4	mg/Kg	☼	08/21/15 08:30	08/21/15 19:16	1
Lead	160		2.9	0.35	mg/Kg	☼	08/21/15 08:30	08/21/15 19:16	1
Manganese	870		4.8	0.63	mg/Kg	☼	08/21/15 08:30	08/21/15 19:16	1
Molybdenum	10		3.8	0.34	mg/Kg	☼	08/21/15 08:30	08/21/15 19:16	1
Nickel	4.2	B	2.9	0.48	mg/Kg	☼	08/21/15 08:30	08/21/15 19:16	1
Selenium	2.5	U	9.6	2.5	mg/Kg	☼	08/21/15 08:30	08/21/15 19:16	1
Silver	1.4	J	1.9	0.39	mg/Kg	☼	08/21/15 08:30	08/21/15 19:16	1
Thallium	0.36	J	1.9	0.067	mg/Kg	☼	08/21/15 08:30	08/21/15 19:16	1
Vanadium	44		9.6	0.74	mg/Kg	☼	08/21/15 08:30	08/21/15 19:16	1
Zinc	860		19	6.0	mg/Kg	☼	08/21/15 08:30	08/21/15 19:16	1

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.13	U	0.39	0.13	mg/Kg	☼	08/21/15 12:45	08/21/15 19:47	1

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Solids	4.7		0.25	0.25	%	-		08/20/15 15:37	1

General Chemistry - Soluble

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH adj. to 25 deg C	3.99		0.100	0.100	SU	-		08/20/15 20:57	1

Client Sample ID: TP02_081815

Lab Sample ID: 680-115840-23

Date Collected: 08/18/15 14:25

Matrix: Solid

Date Received: 08/20/15 09:35

Percent Solids: 5.9

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	8200		160	26	mg/Kg	☼	08/21/15 08:30	08/21/15 18:25	1
Calcium	6800	B	820	230	mg/Kg	☼	08/21/15 08:30	08/21/15 18:25	1
Iron	150000		250	63	mg/Kg	☼	08/21/15 08:30	08/21/15 18:25	1
Magnesium	1200	B	330	61	mg/Kg	☼	08/21/15 08:30	08/21/15 18:25	1
Potassium	1600	J	4900	680	mg/Kg	☼	08/21/15 08:30	08/21/15 18:25	1
Sodium	1100	J	8200	970	mg/Kg	☼	08/21/15 08:30	08/21/15 18:25	1

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	3.0	J B	3.3	0.23	mg/Kg	☼	08/21/15 08:30	08/21/15 19:19	1
Arsenic	98		9.9	0.83	mg/Kg	☼	08/21/15 08:30	08/21/15 19:19	1
Barium	51	B	3.3	1.2	mg/Kg	☼	08/21/15 08:30	08/21/15 19:19	1
Beryllium	1.3	J	1.6	0.37	mg/Kg	☼	08/21/15 08:30	08/21/15 19:19	1
Cadmium	1.8		1.6	0.15	mg/Kg	☼	08/21/15 08:30	08/21/15 19:19	1
Chromium	7.7		3.3	1.3	mg/Kg	☼	08/21/15 08:30	08/21/15 19:19	1
Cobalt	3.2		1.6	0.11	mg/Kg	☼	08/21/15 08:30	08/21/15 19:19	1
Copper	710		4.1	1.2	mg/Kg	☼	08/21/15 08:30	08/21/15 19:19	1
Lead	220		2.5	0.30	mg/Kg	☼	08/21/15 08:30	08/21/15 19:19	1
Manganese	650		4.1	0.54	mg/Kg	☼	08/21/15 08:30	08/21/15 19:19	1

TestAmerica Savannah

Client Sample Results

Client: Weston Solutions, Inc.
 Project/Site: Gold King Mine - Region 8 (Soils)

TestAmerica Job ID: 680-115840-2

Client Sample ID: TP02_081815

Lab Sample ID: 680-115840-23

Date Collected: 08/18/15 14:25

Matrix: Solid

Date Received: 08/20/15 09:35

Percent Solids: 5.9

Method: 6020A - Metals (ICP/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Molybdenum	13		3.3	0.29	mg/Kg	☼	08/21/15 08:30	08/21/15 19:19	1
Nickel	3.2	B	2.5	0.42	mg/Kg	☼	08/21/15 08:30	08/21/15 19:19	1
Selenium	2.8	J	8.2	2.2	mg/Kg	☼	08/21/15 08:30	08/21/15 19:19	1
Silver	1.2	J	1.6	0.33	mg/Kg	☼	08/21/15 08:30	08/21/15 19:19	1
Thallium	0.29	J	1.6	0.058	mg/Kg	☼	08/21/15 08:30	08/21/15 19:19	1
Vanadium	57		8.2	0.63	mg/Kg	☼	08/21/15 08:30	08/21/15 19:19	1
Zinc	640		16	5.2	mg/Kg	☼	08/21/15 08:30	08/21/15 19:19	1

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.11	U	0.34	0.11	mg/Kg	☼	08/21/15 12:45	08/21/15 19:50	1

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Solids	4.7		0.25	0.25	%			08/20/15 15:37	1

General Chemistry - Soluble

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH adj. to 25 deg C	3.82		0.100	0.100	SU			08/20/15 20:57	1

QC Sample Results

Client: Weston Solutions, Inc.
 Project/Site: Gold King Mine - Region 8 (Soils)

TestAmerica Job ID: 680-115840-2

Method: 6010C - Metals (ICP)

Lab Sample ID: MB 280-291577/1-A
Matrix: Solid
Analysis Batch: 291793

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 291577

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Aluminum	1.6	U	10	1.6	mg/Kg		08/21/15 08:30	08/21/15 18:04	1
Calcium	22.1	J	50	14	mg/Kg		08/21/15 08:30	08/21/15 18:04	1
Iron	3.8	U	15	3.8	mg/Kg		08/21/15 08:30	08/21/15 18:04	1
Magnesium	6.70	J	20	3.7	mg/Kg		08/21/15 08:30	08/21/15 18:04	1
Potassium	41	U	300	41	mg/Kg		08/21/15 08:30	08/21/15 18:04	1
Sodium	59	U	500	59	mg/Kg		08/21/15 08:30	08/21/15 18:04	1

Lab Sample ID: LCS 280-291577/2-A
Matrix: Solid
Analysis Batch: 291793

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 291577

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Aluminum	200	202		mg/Kg		101	82 - 116
Calcium	5000	5130		mg/Kg		103	82 - 114
Iron	100	105		mg/Kg		105	87 - 120
Magnesium	5000	5230		mg/Kg		105	90 - 110
Potassium	5000	5200		mg/Kg		104	89 - 110
Sodium	5000	5410		mg/Kg		108	90 - 112

Lab Sample ID: 680-115840-21 MS
Matrix: Solid
Analysis Batch: 291793

Client Sample ID: GKMSE28_081915
Prep Type: Total/NA
Prep Batch: 291577

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Aluminum	9000		261	9830	4	mg/Kg	☼	336	50 - 200
Calcium	2300	B	6530	8510		mg/Kg	☼	96	43 - 165
Iron	16000		131	13000	4	mg/Kg	☼	-2330	70 - 200
Magnesium	4900	B	6530	9510		mg/Kg	☼	70	64 - 145
Potassium	810		6530	8030		mg/Kg	☼	111	56 - 172
Sodium	79	U	6530	6870		mg/Kg	☼	105	78 - 111

Lab Sample ID: 680-115840-21 MSD
Matrix: Solid
Analysis Batch: 291793

Client Sample ID: GKMSE28_081915
Prep Type: Total/NA
Prep Batch: 291577

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	
										RPD	Limit
Aluminum	9000		244	10500	4	mg/Kg	☼	654	50 - 200	7	20
Calcium	2300	B	6090	9490		mg/Kg	☼	119	43 - 165	11	20
Iron	16000		122	14600	4	mg/Kg	☼	-1224	70 - 200	11	20
Magnesium	4900	B	6090	8990		mg/Kg	☼	67	64 - 145	6	20
Potassium	810		6090	7820		mg/Kg	☼	115	56 - 172	3	20
Sodium	79	U	6090	6390		mg/Kg	☼	105	78 - 111	7	20

Lab Sample ID: 680-115840-21 DU
Matrix: Solid
Analysis Batch: 291793

Client Sample ID: GKMSE28_081915
Prep Type: Total/NA
Prep Batch: 291577

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	Limit
Aluminum	9000		6540		mg/Kg	☼	31	40

TestAmerica Savannah

QC Sample Results

Client: Weston Solutions, Inc.
 Project/Site: Gold King Mine - Region 8 (Soils)

TestAmerica Job ID: 680-115840-2

Method: 6010C - Metals (ICP) (Continued)

Lab Sample ID: 680-115840-21 DU
Matrix: Solid
Analysis Batch: 291793

Client Sample ID: GKMSE28_081915
Prep Type: Total/NA
Prep Batch: 291577

Analyte	Sample	Sample	DU	DU	Unit	D	RPD	Limit
	Result	Qualifier	Result	Qualifier				
Calcium	2300	B	2040		mg/Kg	*	10	30
Iron	16000		13100		mg/Kg	*	21	40
Magnesium	4900	B	2150	F3	mg/Kg	*	79	30
Potassium	810		731		mg/Kg	*	10	40
Sodium	79	U	84	U	mg/Kg	*	NC	30

Method: 6020A - Metals (ICP/MS)

Lab Sample ID: MB 280-291579/1-A
Matrix: Solid
Analysis Batch: 291792

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 291579

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Antimony	0.0155	J	0.20	0.014	mg/Kg		08/21/15 08:30	08/21/15 18:47	1
Arsenic	0.051	U	0.60	0.051	mg/Kg		08/21/15 08:30	08/21/15 18:47	1
Barium	0.0832	J	0.20	0.071	mg/Kg		08/21/15 08:30	08/21/15 18:47	1
Beryllium	0.023	U	0.10	0.023	mg/Kg		08/21/15 08:30	08/21/15 18:47	1
Cadmium	0.0094	U	0.10	0.0094	mg/Kg		08/21/15 08:30	08/21/15 18:47	1
Chromium	0.076	U	0.20	0.076	mg/Kg		08/21/15 08:30	08/21/15 18:47	1
Cobalt	0.0066	U	0.10	0.0066	mg/Kg		08/21/15 08:30	08/21/15 18:47	1
Copper	0.071	U	0.25	0.071	mg/Kg		08/21/15 08:30	08/21/15 18:47	1
Lead	0.018	U	0.15	0.018	mg/Kg		08/21/15 08:30	08/21/15 18:47	1
Manganese	0.033	U	0.25	0.033	mg/Kg		08/21/15 08:30	08/21/15 18:47	1
Molybdenum	0.018	U	0.20	0.018	mg/Kg		08/21/15 08:30	08/21/15 18:47	1
Nickel	0.0382	J	0.15	0.025	mg/Kg		08/21/15 08:30	08/21/15 18:47	1
Selenium	0.13	U	0.50	0.13	mg/Kg		08/21/15 08:30	08/21/15 18:47	1
Silver	0.020	U	0.10	0.020	mg/Kg		08/21/15 08:30	08/21/15 18:47	1
Thallium	0.0035	U	0.10	0.0035	mg/Kg		08/21/15 08:30	08/21/15 18:47	1
Vanadium	0.039	U	0.50	0.039	mg/Kg		08/21/15 08:30	08/21/15 18:47	1
Zinc	0.32	U	1.0	0.32	mg/Kg		08/21/15 08:30	08/21/15 18:47	1

Lab Sample ID: LCS 280-291579/2-A
Matrix: Solid
Analysis Batch: 291792

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 291579

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	20.0	20.4		mg/Kg		102	83 - 111
Barium	20.0	20.5		mg/Kg		102	86 - 120
Beryllium	20.0	19.6		mg/Kg		98	70 - 136
Cadmium	20.0	20.4		mg/Kg		102	85 - 109
Chromium	20.0	20.7		mg/Kg		103	87 - 121
Cobalt	20.0	21.5		mg/Kg		108	91 - 113
Copper	20.0	20.6		mg/Kg		103	87 - 125
Lead	20.0	20.8		mg/Kg		104	81 - 125
Manganese	20.0	21.1		mg/Kg		106	86 - 120
Molybdenum	20.0	20.7		mg/Kg		104	80 - 120
Nickel	20.0	21.0		mg/Kg		105	90 - 113

TestAmerica Savannah

QC Sample Results

Client: Weston Solutions, Inc.
 Project/Site: Gold King Mine - Region 8 (Soils)

TestAmerica Job ID: 680-115840-2

Method: 6020A - Metals (ICP/MS) (Continued)

Lab Sample ID: LCS 280-291579/2-A
Matrix: Solid
Analysis Batch: 291792

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 291579

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Selenium	20.0	20.0		mg/Kg		100	78 - 108
Silver	20.0	16.7		mg/Kg		83	83 - 113
Thallium	20.0	20.8		mg/Kg		104	84 - 124
Vanadium	20.0	20.5		mg/Kg		102	88 - 114
Zinc	20.0	20.7		mg/Kg		104	85 - 119

Lab Sample ID: 680-115840-21 MS
Matrix: Solid
Analysis Batch: 291792

Client Sample ID: GKMSE28_081915
Prep Type: Total/NA
Prep Batch: 291579

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Antimony	0.12	J F2 F1 B	28.5	7.37	F1	mg/Kg	☼	25	82 - 110
Arsenic	7.4		28.5	34.8		mg/Kg	☼	96	83 - 111
Barium	41	F1 B	28.5	62.9	F1	mg/Kg	☼	76	86 - 120
Beryllium	0.65		28.5	28.9		mg/Kg	☼	99	70 - 136
Cadmium	0.96		28.5	29.5		mg/Kg	☼	100	85 - 109
Chromium	4.4		28.5	32.7		mg/Kg	☼	99	87 - 121
Cobalt	7.4		28.5	37.7		mg/Kg	☼	107	91 - 113
Copper	85	F1	28.5	88.8	F1	mg/Kg	☼	15	87 - 125
Lead	78	F1	28.5	66.0	F1	mg/Kg	☼	-41	81 - 125
Manganese	610		28.5	565	4	mg/Kg	☼	-146	86 - 120
Molybdenum	0.99		28.5	29.3		mg/Kg	☼	99	80 - 120
Nickel	7.2	B	28.5	36.0		mg/Kg	☼	101	90 - 113
Selenium	0.36	J	28.5	28.3		mg/Kg	☼	98	78 - 108
Silver	0.34	F2 F1	28.5	22.4	F1	mg/Kg	☼	77	83 - 113
Thallium	0.13		28.5	28.6		mg/Kg	☼	100	84 - 124
Vanadium	12		28.5	43.2		mg/Kg	☼	110	88 - 114
Zinc	550		28.5	430	4	mg/Kg	☼	-412	85 - 119

Lab Sample ID: 680-115840-21 MSD
Matrix: Solid
Analysis Batch: 291792

Client Sample ID: GKMSE28_081915
Prep Type: Total/NA
Prep Batch: 291579

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Antimony	0.12	J F2 F1 B	25.4	5.37	F1 F2	mg/Kg	☼	21	82 - 110	31	20
Arsenic	7.4		25.4	32.4		mg/Kg	☼	98	83 - 111	7	20
Barium	41	F1 B	25.4	76.7	F1	mg/Kg	☼	140	86 - 120	20	20
Beryllium	0.65		25.4	27.5		mg/Kg	☼	106	70 - 136	5	20
Cadmium	0.96		25.4	27.1		mg/Kg	☼	103	85 - 109	8	20
Chromium	4.4		25.4	31.3		mg/Kg	☼	106	87 - 121	4	20
Cobalt	7.4		25.4	34.9		mg/Kg	☼	108	91 - 113	8	20
Copper	85	F1	25.4	97.6	F1	mg/Kg	☼	51	87 - 125	9	20
Lead	78	F1	25.4	76.8	F1	mg/Kg	☼	-3	81 - 125	15	20
Manganese	610		25.4	642	4	mg/Kg	☼	138	86 - 120	13	20
Molybdenum	0.99		25.4	27.1		mg/Kg	☼	103	80 - 120	8	20
Nickel	7.2	B	25.4	33.2		mg/Kg	☼	102	90 - 113	8	20
Selenium	0.36	J	25.4	26.3		mg/Kg	☼	102	78 - 108	7	20
Silver	0.34	F2 F1	25.4	16.8	F1 F2	mg/Kg	☼	65	83 - 113	28	20
Thallium	0.13		25.4	26.8		mg/Kg	☼	105	84 - 124	7	20

TestAmerica Savannah

QC Sample Results

Client: Weston Solutions, Inc.
Project/Site: Gold King Mine - Region 8 (Soils)

TestAmerica Job ID: 680-115840-2

Method: 6020A - Metals (ICP/MS) (Continued)

Lab Sample ID: 680-115840-21 MSD
Matrix: Solid
Analysis Batch: 291792

Client Sample ID: GKMSE28_081915
Prep Type: Total/NA
Prep Batch: 291579

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Vanadium	12		25.4	39.2		mg/Kg	☼	107	88 - 114	10	20
Zinc	550		25.4	509	4	mg/Kg	☼	-149	85 - 119	17	20

Lab Sample ID: 680-115840-21 DU
Matrix: Solid
Analysis Batch: 291792

Client Sample ID: GKMSE28_081915
Prep Type: Total/NA
Prep Batch: 291579

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	Limit
Antimony	0.12	J F2 F1 B	0.0480	J F5	mg/Kg	☼	86	20
Arsenic	7.4		6.06		mg/Kg	☼	20	20
Barium	41	F1 B	34.9		mg/Kg	☼	16	20
Beryllium	0.65		0.461	F3	mg/Kg	☼	34	20
Cadmium	0.96		0.745	F3	mg/Kg	☼	25	20
Chromium	4.4		4.80		mg/Kg	☼	8	20
Cobalt	7.4		9.62	F3	mg/Kg	☼	26	20
Copper	85	F1	57.9	F3	mg/Kg	☼	37	20
Lead	78	F1	37.7	F3	mg/Kg	☼	69	20
Manganese	610		960	F3	mg/Kg	☼	45	20
Molybdenum	0.99		0.675	F3	mg/Kg	☼	38	20
Nickel	7.2	B	7.10		mg/Kg	☼	1	20
Selenium	0.36	J	0.225	J F5	mg/Kg	☼	46	20
Silver	0.34	F2 F1	0.195	F3	mg/Kg	☼	54	20
Thallium	0.13		0.0969	J F5	mg/Kg	☼	26	20
Vanadium	12		19.2	F3	mg/Kg	☼	47	20
Zinc	550		419	F3	mg/Kg	☼	26	20

Method: 7471A - Mercury (CVAA)

Lab Sample ID: MB 280-291584/1-A
Matrix: Solid
Analysis Batch: 291807

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 291584

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.0055	U	0.017	0.0055	mg/Kg		08/21/15 12:45	08/21/15 19:41	1

Lab Sample ID: LCS 280-291584/2-A
Matrix: Solid
Analysis Batch: 291807

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 291584

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Mercury	0.417	0.428		mg/Kg		103	87 - 111

Lab Sample ID: 680-115840-23 MS
Matrix: Solid
Analysis Batch: 291807

Client Sample ID: TP02_081815
Prep Type: Total/NA
Prep Batch: 291584

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Mercury	0.11	U	7.07	7.23		mg/Kg	☼	102	87 - 111

TestAmerica Savannah

QC Sample Results

Client: Weston Solutions, Inc.
 Project/Site: Gold King Mine - Region 8 (Soils)

TestAmerica Job ID: 680-115840-2

Method: 7471A - Mercury (CVAA) (Continued)

Lab Sample ID: 680-115840-23 MSD
Matrix: Solid
Analysis Batch: 291807

Client Sample ID: TP02_081815
Prep Type: Total/NA
Prep Batch: 291584

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Mercury	0.11	U	7.45	7.82		mg/Kg	☼	105	87 - 111	8	20

Lab Sample ID: 680-115840-23 DU
Matrix: Solid
Analysis Batch: 291807

Client Sample ID: TP02_081815
Prep Type: Total/NA
Prep Batch: 291584

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	Limit
Mercury	0.11	U	0.10	U	mg/Kg	☼	NC	20

Method: 9045D - pH

Lab Sample ID: LCS 280-291606/4
Matrix: Solid
Analysis Batch: 291606

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
pH adj. to 25 deg C	7.00	7.010		SU		100	97 - 103

Lab Sample ID: 680-115840-22 DU
Matrix: Solid
Analysis Batch: 291606

Client Sample ID: TP01_081815
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	Limit
pH adj. to 25 deg C	3.99		4.000		SU		0.3	5

Method: SM 2540B - Solids, Total

Lab Sample ID: MB 280-291561/1
Matrix: Solid
Analysis Batch: 291561

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Solids	0.10	U	0.10	0.10	%			08/20/15 15:37	1

Lab Sample ID: 680-115840-22 DU
Matrix: Solid
Analysis Batch: 291561

Client Sample ID: TP01_081815
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	Limit
Total Solids	4.7		4.58		%		1	10

QC Association Summary

Client: Weston Solutions, Inc.
Project/Site: Gold King Mine - Region 8 (Soils)

TestAmerica Job ID: 680-115840-2

Metals

Prep Batch: 291577

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-115840-21	GKMSE28_081915	Total/NA	Solid	3050B	
680-115840-21 DU	GKMSE28_081915	Total/NA	Solid	3050B	
680-115840-21 MS	GKMSE28_081915	Total/NA	Solid	3050B	
680-115840-21 MSD	GKMSE28_081915	Total/NA	Solid	3050B	
680-115840-22	TP01_081815	Total/NA	Solid	3050B	
680-115840-23	TP02_081815	Total/NA	Solid	3050B	
LCS 280-291577/2-A	Lab Control Sample	Total/NA	Solid	3050B	
MB 280-291577/1-A	Method Blank	Total/NA	Solid	3050B	

Prep Batch: 291579

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-115840-21	GKMSE28_081915	Total/NA	Solid	3050B	
680-115840-21 DU	GKMSE28_081915	Total/NA	Solid	3050B	
680-115840-21 MS	GKMSE28_081915	Total/NA	Solid	3050B	
680-115840-21 MSD	GKMSE28_081915	Total/NA	Solid	3050B	
680-115840-22	TP01_081815	Total/NA	Solid	3050B	
680-115840-23	TP02_081815	Total/NA	Solid	3050B	
LCS 280-291579/2-A	Lab Control Sample	Total/NA	Solid	3050B	
MB 280-291579/1-A	Method Blank	Total/NA	Solid	3050B	

Prep Batch: 291584

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-115840-21	GKMSE28_081915	Total/NA	Solid	7471A	
680-115840-22	TP01_081815	Total/NA	Solid	7471A	
680-115840-23	TP02_081815	Total/NA	Solid	7471A	
680-115840-23 DU	TP02_081815	Total/NA	Solid	7471A	
680-115840-23 MS	TP02_081815	Total/NA	Solid	7471A	
680-115840-23 MSD	TP02_081815	Total/NA	Solid	7471A	
LCS 280-291584/2-A	Lab Control Sample	Total/NA	Solid	7471A	
MB 280-291584/1-A	Method Blank	Total/NA	Solid	7471A	

Analysis Batch: 291792

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-115840-21	GKMSE28_081915	Total/NA	Solid	6020A	291579
680-115840-21 DU	GKMSE28_081915	Total/NA	Solid	6020A	291579
680-115840-21 MS	GKMSE28_081915	Total/NA	Solid	6020A	291579
680-115840-21 MSD	GKMSE28_081915	Total/NA	Solid	6020A	291579
680-115840-22	TP01_081815	Total/NA	Solid	6020A	291579
680-115840-23	TP02_081815	Total/NA	Solid	6020A	291579
LCS 280-291579/2-A	Lab Control Sample	Total/NA	Solid	6020A	291579
MB 280-291579/1-A	Method Blank	Total/NA	Solid	6020A	291579

Analysis Batch: 291793

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-115840-21	GKMSE28_081915	Total/NA	Solid	6010C	291577
680-115840-21 DU	GKMSE28_081915	Total/NA	Solid	6010C	291577
680-115840-21 MS	GKMSE28_081915	Total/NA	Solid	6010C	291577
680-115840-21 MSD	GKMSE28_081915	Total/NA	Solid	6010C	291577
680-115840-22	TP01_081815	Total/NA	Solid	6010C	291577
680-115840-23	TP02_081815	Total/NA	Solid	6010C	291577
LCS 280-291577/2-A	Lab Control Sample	Total/NA	Solid	6010C	291577

TestAmerica Savannah

QC Association Summary

Client: Weston Solutions, Inc.
 Project/Site: Gold King Mine - Region 8 (Soils)

TestAmerica Job ID: 680-115840-2

Metals (Continued)

Analysis Batch: 291793 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 280-291577/1-A	Method Blank	Total/NA	Solid	6010C	291577

Analysis Batch: 291807

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-115840-21	GKMSE28_081915	Total/NA	Solid	7471A	291584
680-115840-22	TP01_081815	Total/NA	Solid	7471A	291584
680-115840-23	TP02_081815	Total/NA	Solid	7471A	291584
680-115840-23 DU	TP02_081815	Total/NA	Solid	7471A	291584
680-115840-23 MS	TP02_081815	Total/NA	Solid	7471A	291584
680-115840-23 MSD	TP02_081815	Total/NA	Solid	7471A	291584
LCS 280-291584/2-A	Lab Control Sample	Total/NA	Solid	7471A	291584
MB 280-291584/1-A	Method Blank	Total/NA	Solid	7471A	291584

General Chemistry

Analysis Batch: 291561

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-115840-22	TP01_081815	Total/NA	Solid	SM 2540B	
680-115840-22 DU	TP01_081815	Total/NA	Solid	SM 2540B	
680-115840-23	TP02_081815	Total/NA	Solid	SM 2540B	
MB 280-291561/1	Method Blank	Total/NA	Solid	SM 2540B	

Analysis Batch: 291566

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-115840-21	GKMSE28_081915	Total/NA	Solid	Moisture	
680-115840-22	TP01_081815	Total/NA	Solid	Moisture	
680-115840-23	TP02_081815	Total/NA	Solid	Moisture	

Leach Batch: 291580

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-115840-22	TP01_081815	Soluble	Solid	DI Leach	
680-115840-22 DU	TP01_081815	Soluble	Solid	DI Leach	
680-115840-23	TP02_081815	Soluble	Solid	DI Leach	

Analysis Batch: 291606

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-115840-22	TP01_081815	Soluble	Solid	9045D	291580
680-115840-22 DU	TP01_081815	Soluble	Solid	9045D	291580
680-115840-23	TP02_081815	Soluble	Solid	9045D	291580
LCS 280-291606/4	Lab Control Sample	Total/NA	Solid	9045D	

Lab Chronicle

Client: Weston Solutions, Inc.
 Project/Site: Gold King Mine - Region 8 (Soils)

TestAmerica Job ID: 680-115840-2

Client Sample ID: GKMSE28_081915
Date Collected: 08/19/15 10:32
Date Received: 08/20/15 09:35

Lab Sample ID: 680-115840-21
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			291566	08/20/15 16:19	RSM	TAL DEN
Instrument ID: NOEQUIP										

Client Sample ID: GKMSE28_081915
Date Collected: 08/19/15 10:32
Date Received: 08/20/15 09:35

Lab Sample ID: 680-115840-21
Matrix: Solid
Percent Solids: 69.6

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.07 g	100 mL	291577	08/21/15 08:30	SUR	TAL DEN
Total/NA	Analysis	6010C		1	1.07 g	100 mL	291793	08/21/15 18:08	LRD	TAL DEN
Instrument ID: MT_025										
Total/NA	Prep	3050B			1.16 g	100 mL	291579	08/21/15 08:30	CDH	TAL DEN
Total/NA	Analysis	6020A		1	1.16 g	100 mL	291792	08/21/15 18:54	LMT	TAL DEN
Instrument ID: MT_078										
Total/NA	Prep	7471A			0.51 g	50 mL	291584	08/21/15 12:45	DEG	TAL DEN
Total/NA	Analysis	7471A		1	0.51 g	50 mL	291807	08/21/15 19:45	CMK	TAL DEN
Instrument ID: MT_033										

Client Sample ID: TP01_081815
Date Collected: 08/18/15 14:20
Date Received: 08/20/15 09:35

Lab Sample ID: 680-115840-22
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			40.07 g	40 mL	291580	08/20/15 17:24	MAS	TAL DEN
Soluble	Analysis	9045D		1	1 mL	1 mL	291606	08/20/15 20:57	MAS	TAL DEN
Instrument ID: NOEQUIP										
Total/NA	Analysis	Moisture		1			291566	08/20/15 16:19	RSM	TAL DEN
Instrument ID: NOEQUIP										
Total/NA	Analysis	SM 2540B		1	10.1123 g	25 mL	291561	08/20/15 15:37	MW1	TAL DEN
Instrument ID: NOEQUIP										

Client Sample ID: TP01_081815
Date Collected: 08/18/15 14:20
Date Received: 08/20/15 09:35

Lab Sample ID: 680-115840-22
Matrix: Solid
Percent Solids: 4.5

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.07 g	100 mL	291577	08/21/15 08:30	SUR	TAL DEN
Total/NA	Analysis	6010C		1	1.07 g	100 mL	291793	08/21/15 18:23	LRD	TAL DEN
Instrument ID: MT_025										
Total/NA	Prep	3050B			1.15 g	100 mL	291579	08/21/15 08:30	CDH	TAL DEN
Total/NA	Analysis	6020A		1	1.15 g	100 mL	291792	08/21/15 19:16	LMT	TAL DEN
Instrument ID: MT_078										
Total/NA	Prep	7471A			0.58 g	50 mL	291584	08/21/15 12:45	DEG	TAL DEN

TestAmerica Savannah

Lab Chronicle

Client: Weston Solutions, Inc.
Project/Site: Gold King Mine - Region 8 (Soils)

TestAmerica Job ID: 680-115840-2

Client Sample ID: TP01_081815

Lab Sample ID: 680-115840-22

Date Collected: 08/18/15 14:20

Matrix: Solid

Date Received: 08/20/15 09:35

Percent Solids: 4.5

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	7471A		1	0.58 g	50 mL	291807	08/21/15 19:47	CMK	TAL DEN
Instrument ID: MT_033										

Client Sample ID: TP02_081815

Lab Sample ID: 680-115840-23

Date Collected: 08/18/15 14:25

Matrix: Solid

Date Received: 08/20/15 09:35

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			40.33 g	40 mL	291580	08/20/15 17:24	MAS	TAL DEN
Soluble	Analysis	9045D		1	1 mL	1 mL	291606	08/20/15 20:57	MAS	TAL DEN
Instrument ID: NOEQUIP										
Total/NA	Analysis	Moisture		1			291566	08/20/15 16:19	RSM	TAL DEN
Instrument ID: NOEQUIP										
Total/NA	Analysis	SM 2540B		1	10.1161 g	25 mL	291561	08/20/15 15:37	MW1	TAL DEN
Instrument ID: NOEQUIP										

Client Sample ID: TP02_081815

Lab Sample ID: 680-115840-23

Date Collected: 08/18/15 14:25

Matrix: Solid

Date Received: 08/20/15 09:35

Percent Solids: 5.9

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.03 g	100 mL	291577	08/21/15 08:30	SUR	TAL DEN
Total/NA	Analysis	6010C		1	1.03 g	100 mL	291793	08/21/15 18:25	LRD	TAL DEN
Instrument ID: MT_025										
Total/NA	Prep	3050B			1.03 g	100 mL	291579	08/21/15 08:30	CDH	TAL DEN
Total/NA	Analysis	6020A		1	1.03 g	100 mL	291792	08/21/15 19:19	LMT	TAL DEN
Instrument ID: MT_078										
Total/NA	Prep	7471A			0.51 g	50 mL	291584	08/21/15 12:45	DEG	TAL DEN
Total/NA	Analysis	7471A		1	0.51 g	50 mL	291807	08/21/15 19:50	CMK	TAL DEN
Instrument ID: MT_033										

Laboratory References:

TAL DEN = TestAmerica Denver, 4955 Yarrow Street, Arvada, CO 80002, TEL (303)736-0100

USEPA

Date Shipped: 8/19/2015

Carrier Name: FedEx

Airbill No:

CHAIN OF CUSTODY RECORD

Site #: A8K9

Contact Name: Moira Pryhoda

Contact Phone: 3037296112

No: 8-081915-085046-0012

Cooler #:

Lab: TestAmerica Laboratories, Inc - Savannah, GA

Lab Phone: 912-354-7858

Lab #	Sample #	Location	Analyses	Matrix	Collected	Sample Time	Numb Cont	Container	Preservative	Lab QC
	CC03_081815	CC03	Total Recoverable Metals & Mercury, hardness	Surface Water	8/18/2015	10:15	1	250 mL poly	HNO3 pH<2	
	CC03_081815	CC03	Total Dissolved Metals & Mercury	Surface Water	8/18/2015	10:15	1	500 mL poly	HNO3 pH<2	
	CC03_081815	CC03	pH, Alkalinity, anions	Surface Water	8/18/2015	10:15	1	250 mL poly	4 C	
	CC05_081815	CC05	Total Recoverable Metals & Mercury, hardness	Surface Water	8/18/2015	10:45	1	250 mL poly	HNO3 pH<2	
	CC05_081815	CC05	Total Dissolved Metals & Mercury	Surface Water	8/18/2015	10:45	1	500 mL poly	HNO3 pH<2	
	CC05_081815	CC05	pH, Alkalinity, anions	Surface Water	8/18/2015	10:45	1	250 mL poly	4 C	
	CC48_081815_1250	CC48	Total Recoverable Metals & Mercury, hardness	Surface Water	8/18/2015	12:50	1	250 mL poly	HNO3 pH<2	
	CC48_081815_1250	CC48	Total Dissolved Metals & Mercury	Surface Water	8/18/2015	12:50	1	500 mL poly	HNO3 pH<2	
	CC48_081815_1250	CC48	pH, Alkalinity, anions	Surface Water	8/18/2015	12:50	1	250 mL poly	4 C	
	GKMSW01_081915	GKMD1	Total Recoverable Metals & Mercury, hardness	Surface Water	8/19/2015	09:45	1	250 mL poly	HNO3 pH<2	

SPECIAL INSTRUCTIONS: Scribe compatible EDD, dissolved bottles field filtered prior to preservation	
SAMPLES TRANSFERRED FROM	
CHAIN OF CUSTODY #	

Items/Reason	Relinquished by (Signature and Organization)	Date/Time	Received by (Signature and Organization)	Date/Time	Sample Condition Upon Receipt
	<i>Moira Pryhoda</i>	8/19/15 14:00	<i>[Signature]</i>	8/20/15 9:42	1.4/1.8 2.4/2.8



USEPA

Date Shipped: 8/19/2015

Carrier Name: FedEx

Airbill No:

CHAIN OF CUSTODY RECORD

Site #: A8K9

Contact Name: Moira Pryhoda

Contact Phone: 3037296112

No: 8-081915-085046-0012

Cooler #:

Lab: TestAmerica Laboratories, Inc - Savannah, GA

Lab Phone: 912-354-7858

Lab #	Sample #	Location	Analyses	Matrix	Collected	Sample Time	Numb Cont	Container	Preservative	Lab QC
	GKMSW01_081915	GKM01	Total Dissolved Metals & Mercury	Surface Water	8/19/2015	09:45	1	500 mL poly	HNO3 pH<2	
	GKMSW01_081915	GKM01	pH, Alkalinity, anions	Surface Water	8/19/2015	09:45	1	250 mL poly	4 C	
	GKMSW04_081915	GKM04	Total Recoverable Metals & Mercury, hardness	Surface Water	8/19/2015	11:00	1	250 mL poly	HNO3 pH<2	
	GKMSW04_081915	GKM04	Total Dissolved Metals & Mercury	Surface Water	8/19/2015	11:00	1	500 mL poly	HNO3 pH<2	
	GKMSW04_081915	GKM04	pH, Alkalinity, anions	Surface Water	8/19/2015	11:00	1	250 mL poly	4 C	
	GKMSW05_081915	GKM05	Total Recoverable Metals & Mercury, hardness	Surface Water	8/19/2015	10:20	1	250 mL poly	HNO3 pH<2	
	GKMSW05_081915	GKM05	Total Dissolved Metals & Mercury	Surface Water	8/19/2015	10:20	1	500 mL poly	HNO3 pH<2	
	GKMSW05_081915	GKM05	pH, Alkalinity, anions	Surface Water	8/19/2015	10:20	1	250 mL poly	4 C	
	GKMSW19_081915	GKM19	Total Recoverable Metals & Mercury, hardness	Surface Water	8/19/2015	10:14	1	250 mL poly	HNO3 pH<2	N
	GKMTW139_081815	GKMTW139	Total Recoverable Metals & Mercury, hardness	Potable Water	8/18/2015	08:45	1	500 mL poly	HNO3 pH<2	N

Special Instructions: Scribe compatible EDD, dissolved bottles field filtered prior to preservation

SAMPLES TRANSFERRED FROM
CHAIN OF CUSTODY #

Items/Reason	Relinquished by (Signature and Organization)	Date/Time	Received by (Signature and Organization)	Date/Time	Sample Condition Upon Receipt
	<i>Molly...</i>	8/19/15 14:00	<i>[Signature]</i>	8/20/15 9:42	1.4/1.8



USEPA

Date Shipped: 8/19/2015

Carrier Name: FedEx

Airbill No:

CHAIN OF CUSTODY RECORD

Site #: A8K9

Contact Name: Moira Pryhoda

Contact Phone: 3037296112

No: 8-081915-085046-0012

Cooler #:

Lab: TestAmerica Laboratories, Inc - Savannah, GA

Lab Phone: 912-354-7658

Lab #	Sample #	Location	Analyses	Matrix	Collected	Sample Time	Numb Cont	Container	Preservative	Lab QC
	GKMTW178_081815	GKMTW178	Total Recoverable Metals & Mercury, hardness	Potable Water	8/18/2015	11:00	1	500 mL poly	HNO3 pH<2	N
	GKMTW260_081815	GKMTW260	Total Recoverable Metals & Mercury, hardness	Potable Water	8/18/2015	15:35	1	500 mL poly	HNO3 pH<2	N
	GKMTW333_081815	GKMTW333	Total Recoverable Metals & Mercury, hardness	Potable Water	8/18/2015	16:00	1	500 mL poly	HNO3 pH<2	N
	GKMTW334_081815	GKMTW334	Total Recoverable Metals & Mercury, hardness	Potable Water	8/18/2015	15:05	1	500 mL poly	HNO3 pH<2	N
	GKMTW360_081815	GKMTW360	Total Recoverable Metals & Mercury, hardness	Potable Water	8/18/2015	16:20	1	250 mL poly	HNO3 pH<2	N
	GKMTW365_081815	GKMTW365	Total Recoverable Metals & Mercury, hardness	Potable Water	8/18/2015	14:15	1	500 mL poly	HNO3 pH<2	N
	GKMTW68_081815	GKMTW68	Total Recoverable Metals & Mercury, hardness	Potable Water	8/18/2015	09:45	1	500 mL poly	HNO3 pH<2	N
	A68_081815	A68	Total Recoverable Metals & Mercury, hardness	Surface Water	8/18/2015	12:15	3	250 mL poly	HNO3 pH<2	Y
	A68_081815	A68	Total Dissolved Metals & Mercury	Surface Water	8/18/2015	12:15	3	500 mL poly	HNO3 pH<2	Y
	A68_081815	A68	pH, Alkalinity, anions	Surface Water	8/18/2015	12:15	3	250 mL poly	4 C	Y

Special Instructions: Scribe compatible EDD, dissolved bottles field filtered prior to preservation

SAMPLES TRANSFERRED FROM
CHAIN OF CUSTODY #

Items/Reason	Relinquished by (Signature and Organization)	Date/Time	Received by (Signature and Organization)	Date/Time	Sample Condition Upon Receipt
	<i>M. Pryhoda</i>	8/15 14:00	<i>Lynne J...</i>	8/21/15 9:42	1.4/1.8



USEPA

Date Shipped: 8/19/2015

Carrier Name: FedEx

Airbill No:

CHAIN OF CUSTODY RECORD

Site #: A8K9

Contact Name: Moira Pryhoda

Contact Phone: 3037296112

No: 8-081915-085046-0012

Cooler #:

Lab: TestAmerica Laboratories, Inc - Savannah, GA

Lab Phone: 912-354-7858

Lab #	Sample #	Location	Analyses	Matrix	Collected	Sample Time	Numb Cont	Container	Preservative	Lab QC
	A72_081815	A72	Total Recoverable Metals & Mercury, hardness	Surface Water	8/18/2015	14:00	1	500 mL poly	HNO3 pH<2	
	A72_081815	A72	Total Dissolved Metals & Mercury	Surface Water	8/18/2015	14:00	1	500 mL poly	HNO3 pH<2	
	A72_081815	A72	pH, Alkalinity, anions	Surface Water	8/18/2015	14:00	1	250 mL poly	4 C	
	CC48_081815_1215	CC48	Total Recoverable Metals & Mercury, hardness	Surface Water	8/18/2015	12:15	1	250 mL poly	HNO3 pH<2	
	CC48_081815_1215	CC48	Total Dissolved Metals & Mercury	Surface Water	8/18/2015	12:15	1	500 mL poly	HNO3 pH<2	
	CC48_081815_1215	CC48	pH, Alkalinity, anions	Surface Water	8/18/2015	12:15	1	250 mL poly	4 C	
	GKMSW01_081815	GKM01	Total Recoverable Metals & Mercury, hardness	Surface Water	8/18/2015	09:40	1	500 mL poly	HNO3 pH<2	
	GKMSW01_081815	GKM01	Total Dissolved Metals & Mercury	Surface Water	8/18/2015	09:40	1	500 mL poly	HNO3 pH<2	
	GKMSW01_081815	GKM01	pH, Alkalinity, anions	Surface Water	8/18/2015	09:40	1	250 mL poly	4 C	
	GKMSW02_081815	GKM02	Total Recoverable Metals & Mercury, hardness	Surface Water	8/18/2015	10:35	1	250 mL poly	HNO3 pH<2	

SPECIAL INSTRUCTIONS: Scribe compatible EDD, dissolved bottles field filtered prior to preservation	
SAMPLES TRANSFERRED FROM	
CHAIN OF CUSTODY #	

Items/Reason	Relinquished by (Signature and Organization)	Date/Time	Received by (Signature and Organization)	Date/Time	Sample Condition Upon Receipt
	<i>Moira Pryhoda</i>	8/18/2015 14:00	<i>Moira Pryhoda</i>	8/20/15 9:42	1.4/1.8



USEPA

Date Shipped: 8/19/2015

Carrier Name: FedEx

Airbill No:



650-115840 Chain of Custody

CHAIN OF CUSTODY RECORD

Site #: A8K9

Contact Name: Moira Pryhoda

Contact Phone: 303.729.6112

No: 8-081915-134805-0013

Cooler #:

Lab: TestAmerica Laboratories, Inc. - Denver

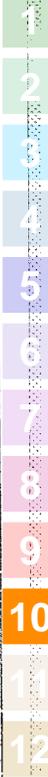
Lab Phone: 303-736-0181

Lab #	Sample #	Location	Analyses	Matrix	Collected	Sample Time	Numb Cont	Container	Preservative	Lab QC
	GKMSE28_081915	GKMSE23	Total Recoverable Metals & Mercury	Sediment	8/19/2015	10:32	1	4 oz glass jar	4 C	
	TP01_081815	TP01	pH and percent moisture	Sediment	8/18/2015	14:20	1	250 mL poly	4 C	N
	TP02_081815	TP02	pH and percent moisture	Sediment	8/18/2015	14:25	1	250 mL poly	4 C	N
	TP02_081815	TP02	Total Dissolved Solids	Sediment	8/18/2015	14:25	1	250 mL poly	4 C	N
	TP02_081815	TP02	Total Suspended Solids	Sediment	8/18/2015	14:25	1	250 mL poly	4 C	N
	TP02_081815	TP02	Total Metals	Sediment	8/18/2015	14:25	1	250 mL poly	4 C	N
	TP01_081815	TP01	Total Dissolved Solids	Sediment	8/18/2015	14:20	1	250 mL poly	4 C	N
	TP01_081815	TP01	Total Suspended Solids	Sediment	8/18/2015	14:20	1	250 mL poly	4 C	N
	TP01_081815	TP01	Total Metals	Sediment	8/18/2015	14:20	1	250 mL poly	4 C	N

Special Instructions: Scribe compatible EDD

SAMPLES TRANSFERRED FROM
CHAIN OF CUSTODY #

Items/Reason	Relinquished by (Signature and Organization)	Date/Time	Received by (Signature and Organization)	Date/Time	Sample Condition Upon Receipt
	<i>Mohapatra</i>	8/15/15	<i>AS</i>	09:35 20/08/15	0.1 (BS) to 1 20/08/15 Transfer by <i>AS</i>



Login Sample Receipt Checklist

Client: Weston Solutions, Inc.

Job Number: 680-115840-2

Login Number: 115840

List Number: 1

Creator: Daughtry, Beth A

List Source: TestAmerica Savannah

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is $<6\text{mm}$ (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Certification Summary

Client: Weston Solutions, Inc.
Project/Site: Gold King Mine - Region 8 (Soils)

TestAmerica Job ID: 680-115840-2

Laboratory: TestAmerica Savannah

The certifications listed below are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Colorado	State Program	8	N/A	12-31-15

Laboratory: TestAmerica Denver

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
A2LA	DoD ELAP		2907.01	10-31-15
A2LA	ISO/IEC 17025		2907.01	10-31-15
Alabama	State Program	4	40730	09-30-12 *
Alaska (UST)	State Program	10	UST-30	04-05-16
Arizona	State Program	9	AZ0713	12-19-15
Arkansas DEQ	State Program	6	88-0687	06-01-16
California	State Program	9	2513	08-31-16
Connecticut	State Program	1	PH-0686	09-30-16
Florida	NELAP	4	E87667	06-30-15 *
Georgia	State Program	4	N/A	01-09-15 *
Illinois	NELAP	5	200017	04-30-16
Iowa	State Program	7	370	11-30-16
Kansas	NELAP	7	E-10166	09-30-15
Louisiana	NELAP	6	02096	06-30-16
Maine	State Program	1	CO0002	03-03-17
Minnesota	NELAP	5	8-999-405	12-31-15
Nevada	State Program	9	CO0026	07-31-16
New Hampshire	NELAP	1	205310	04-28-16
New Jersey	NELAP	2	CO004	09-30-15
New York	NELAP	2	11964	04-01-16
North Carolina (WW/SW)	State Program	4	358	12-31-15
North Dakota	State Program	8	R-034	01-09-16
Oklahoma	State Program	6	8614	08-31-15
Oregon	NELAP	10	4025	01-09-16
Pennsylvania	NELAP	3	68-00664	08-30-15
South Carolina	State Program	4	72002001	06-30-15 *
Texas	NELAP	6	T104704183-13-8	09-30-15
USDA	Federal		P330-13-00202	07-02-16
Utah	NELAP	8	CO00026	07-31-16
Virginia	NELAP	3	460232	06-14-16
Washington	State Program	10	C583	08-03-15 *
West Virginia DEP	State Program	3	354	11-30-15
Wisconsin	State Program	5	999615430	08-31-15
Wyoming (UST)	A2LA	8	2907.01	10-31-15

* Certification renewal pending - certification considered valid.